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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,555	02/08/2006	Masaaki Tozawa	053500	6640

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EXAMINER

THOMAS, JAISON P

ART UNIT	PAPER NUMBER
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1751

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/567,555

Applicant(s)

TOZAWA ET AL.

Examiner

Jaison P. Thomas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-7 and 9-12 is/are rejected.
- 7) ☐ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/8/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 11 recites the limitation "according to claim 1" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 1 has been cancelled in the preliminary amendment of the claims filed 2/8/2006 and, for purposes of examination, Claim 11 will be construed to depend on Claim 12.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 2-7 and 10-12 are rejected under 35 U.S.C. 102(a) as being anticipated by Masahiro (JP 2003-040856).

Example 5 in the Masahiro patent discloses where 2-carbamoyl-5-fluorobenzene sulfonic acid sodium salt is mixed with pyrrole and a film of polypyrrole is produced using electrolytic oxidative polymerization techniques (pg. 6, paras. 0042-0045). Example 2 shows how the sulfonic acid salt is obtained i.e. via addition of sodium carbonate to a solution of 4-fluoro-2-sulfobenzamide. The conductive polymers made by this method can be utilized as electrode materials for capacitors (pg. 7, para. 0050).

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5. Claims 2-7 and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Monden et al. (US Patent 6344966).

"Disclosed are a solid electrolytic capacitor comprising a valve-acting metal, an oxide dielectric layer formed on a surface of the valve-acting metal and a solid electrolyte layer provided on the dielectric film layer, in which the electrically conducting polymer composition layer contains as a dopant at least one anion selected from (1) an alkoxy-substituted naphthalene monosulfonate anion, (2) a heterocyclic sulfonate anion, and (3) an anion of an aliphatic polycyclic compound or a combination thereof with another anion having a dopant ability and a method for producing such a solid electrolytic capacitor." (Abstract). Dopant cations include alkali metal salts of the dopants (Column 14, line 53-54 and Column 17, line 35 and Column 18, line 5).

"Among the polymerizable monomer compounds represented by general formula (III) for use in the solid electrolytic capacitor and the production method thereof of the present invention, for example, thiophene ($R_{sup.1} = R_{sup.2} = H$, $X = S$) and pyrrole ($R_{sup.1} = R_{sup.2} = H$, $X = NH$), or among thiophenes represented by general formula (IV), a polymerizable monomer compound of 3,4-dioxyethylene-thiophene are known."

(Column 11, lines 61-65). Polymers are made through an oxidative polymerization process. (Column 13, lines 21-27). The dopants of the disclosure can be used with oxidizing agents that can simultaneously act as dopants themselves (Column 14, lines 18-20) and such oxidizing agents include alkyl sulfonic acids (Column 18, lines 30-35). Examiner construes this embodiment as being equivalent to mixed sulfonate limitation of instant Claim 9.

6. Claims 2-7,9,11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Shacklette et al. (US Patent 5422423).

"This invention relates to thermally stable electrically conductive conjugated polymer complexes comprising a substituted or unsubstituted positively charged conjugated polymer doped with a dopant anion substituted with one or more anionic functionalities as for example a sulfonate or phosphonate functionalities, and substituted with one or more hydrogen bonding groups such as hydroxyl or carboxyl." (Abstract). Examples of polymers that can be polymerized used the dopants disclosed include polypyrrole. (Column 3, line 16). Examples of the dopant structures are disclosed in Cols. 14-17. One example, on column 14, lines 1-9, show a benzene with a variety of substituents present. The cation, M, is defined in column 14, lines 11-15 as being "H.⁺, or other metal or non-metal cation with the proviso that at least one of M is H.⁺ or a moiety which can be thermally or chemically transformed into a proton under use conditions, such as NH₄⁺, N(CH₃)₂ H₂⁺, PhS⁺, N(C₂H₅)₃H₃⁺ and the like;" which examiner construes as being equivalent to a cation other than a transition metal as required by instant Claim 1. The benzene can also have a R₃ substituent that can be a variety of organic functional groups defined in Column 6, lines 35-67. The polymers of the invention are made using an oxidative polymerization process. (Column 9, lines 10-25). More than one type of dopant can be used when doping the conductive polymers (Column 19, lines 19-27) which Examiner construes as equivalent to the limitations of instant Claim 9

requiring a mixture of two sulfonate compounds. The doped conductive polymers disclosed can be used for a variety of articles including capacitors (Column 23, line 45).

Allowable Subject Matter

7. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaison P. Thomas whose telephone number is (571) 272-8917. The examiner can normally be reached on Mon-Fri 8:30 am to 5:00 pm.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jaison Thomas
Examiner
3/29/2007

JT


Mark Kopec
Primary Examiner